

REMARKS/ARGUMENTS

Claims 1-8 are pending in the present application. Claims 9-28 are canceled. Claims 1-6 and 8 are amended. Support for the amended claims may be found in the claims themselves and in the Applicants' Specification on page 10, lines 22-30, page 13, lines 1-30 and page 15, lines 1-30 and page 18, lines 14-23. Reconsideration of the claims is respectfully requested.

Applicants have amended claims 1-6 and 8 and canceled claims 9-28 from further consideration in this application. Applicants are not conceding in this application that the canceled claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution of the allowable subject matter noted by the Examiner. Applicants respectfully reserve the right to pursue these and other claims, including subject matter encompassed by the claims, as presented prior to this amendment, in one or more continuations and/or divisional patent applications.

I. 35 U.S.C. § 103: Asserted Obviousness

The Examiner has rejected claims 1-28 under 35 U.S.C. § 103 as being unpatentable over *Sabiers et al*, Graphical User Interface For Viewing Interactions Between Web Service Objects, U.S. Publication 2004/0243944 (dated "December 2, 2004) (hereinafter "*Sabiers*") in view of *Klianov*, Graphical Development of Fully Executable Transactional Workflow Applications With Adaptive High-Performance Capacity, U.S. Patent 7,272, 820 (dated September 18, 2007) (hereinafter "*Klianov*"). This rejection is respectfully traversed.

Applicants first address the rejection with respect to claim 1. In rejecting claim 1, the Examiner states:

As to claim 1, *Sabiers* teaches the invention substantially as claimed including a method for presenting event associations between events from one or more event flows on a display screen of a computer (Figure 2), comprising:
constructing a sequence diagram representation (paragraphs [0046]-[0047]), wherein the sequence diagram representation comprises a top node associated with a machine or a process (paragraphs [0046]-[0047] and [0051]);
generating event pairs between the events from the one or more event flows (paragraph [0073]), wherein said sequence diagram representation comprises timelines for said event flows and directional paths between said timelines for said event associations (Figure 2, paragraphs [0047], [0071]-[0074]), and wherein said sequence diagram representation comprises a higher level and a lower level (Figure 3, paragraphs [0051] and [0057]); and
displaying said sequence diagram representation on said display screen (Figure 2, paragraph [0039]).

Sabiers does not explicitly disclose wherein a user drills down from the top node associated with the higher level to the lower level in the sequence diagram representation to view the events.

However, *Klianev* teaches wherein a user drills down from the top node associated with the higher level to the lower level in the sequence diagram representation to view the events (col. 23, lines 66-67 and col. 24, lines 1-2).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the Web Services Components representational graphics of *Sabiers* with the teachings of Collections from *Klianev* because this feature would have provided a mechanism to model a hierarchy of class objects with capacity to represent variety of workflow configurations and associated structure of threads with capacity for concurrent processing of multitude of workflow requests (col. 10, lines 43-46 of *Klianev*) and wherein collections and individual objects are accessible via references controlled by objects belonging to collections from previous level (col. 10, lines 60-63 of *Klianev*).

Final Office Action, dated December 27, 2007, pages 2-4.

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. §103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The scope and content of the prior art are...determined; differences between the prior art and the claims at issue are...ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or non-obviousness of the subject matter is determined. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006)). In this case, neither *Sabiers* nor *Klianev* make the claimed invention obvious.

Amended claim 1 is as follows:

A method for presenting event associations between events from one or more event flows on a display screen of a computer, comprising:

parsing at least one log file to generate the event associations and to suppress non-associated events, wherein the at least one log file comprises the events from the one or more event flows;

constructing multiple sequence diagram representations at lower levels in a first sequence diagram representation, wherein a user drills down from the first sequence diagram representation to the lower levels, and wherein the first sequence diagram representation and the multiple sequence diagram

representations show interactions arranged in a time sequence for methods, objects, classes, threads, and processes;

generating event pairs between the events from the one or more event flows, wherein said first sequence diagram representation comprises timelines for said event flows and directional paths between said timelines for said event associations, and wherein the multiple sequence diagram representations comprise a level of detail between objects located on threads in the first sequence diagram representation that are collapsible, wherein the event pairs are selected according to predetermined parameters; and

displaying said sequence diagram representation on said display screen.

Applicants first respond to the rejection by showing that the proposed modification of the cited reference does not teach or suggest all of the features of amended claim 1. Applicants will then show that no proper reason exists to modify the reference to achieve the invention of amended claim 1.

I.A *Sabiers* and *Klianev*, when considered as a whole, fail to teach or suggest “parsing at least one log file to generate the event associations and to suppress non-associated events, wherein the at least one log file comprises the events from the one or more event flows.”

Amended claim 1 is non-obvious, because the cited references fail to teach or suggest “parsing at least one log file to generate the event associations and to suppress non-associated events, wherein the at least one log file comprises the events from the one or more event flows.”

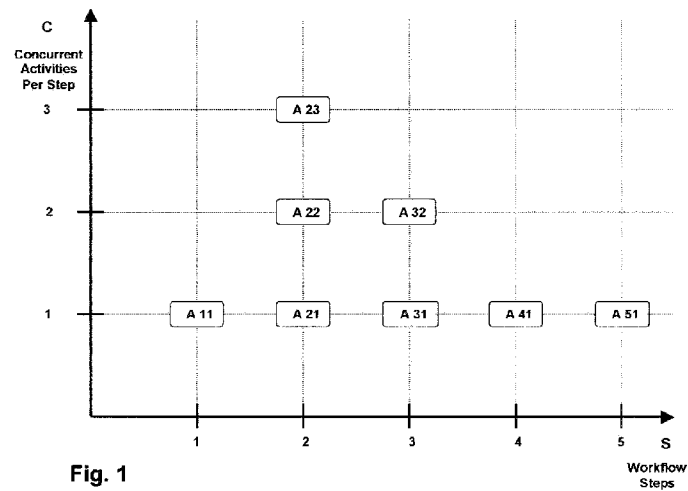
Sabiers states as follows:

[0046] The Web services components **230** can be represented by graphics such as the boxes shown in **FIG.2**. The interconnection components **232a-j** have endpoints that align with two or more of the Web services components **230** and can be used to indicated communications there between. The interconnection components **232a-j** in this example are displayed as straight lines, although other shapes such as arcs or curves can be used.

Sabiers, paragraph 46.

The above-cited portion of *Sabiers* discloses representing components of web services as boxes with straight lines projecting from the boxes and connecting the components with endpoints. However, neither the cited section nor any other section of *Sabiers* teaches or suggests “parsing at least one log file to generate the event associations and to suppress non-associated events, wherein the at least one log file comprises the events from the one or more event flows.” *Sabiers* fails to teach or suggest this feature as recited in amended claim 1. No mention is made in *Sabiers* of suppressing non-associated events from one or more event flows. Thus, *Sabiers* fails to make amended claim 1 obvious, since not every feature of amended claim 1 is taught or suggested in *Sabiers*.

Furthermore, *Klianev* fails to make up for the deficiencies of *Sabiers*. *Klianev* discloses:



Klianev, Figure 1.

The above-cited figure discloses an arrangement of workflow-activities on a matrix of a workflow process according to required sequence of execution.

Fig. 1 is diagram showing sample arrangement of workflow-activities matrix of workflow process, according to required sequence of execution and permitted concurrency of execution within a workflow request. Horizontal axis S shows workflow process' sequential steps of execution. **A11** is the first workflow-activity that will be executed. **A51** is workflow process' last activity that will be executed. Vertical axis C shows number of workflow-activities with allowed concurrent execution on each step of the workflow process.

Klianev, column 6, lines 59-65.

The above-cited section describes Figure 1 from *Klianev*. The above-cited section indicates that the workflow activities matrix has a horizontal axis showing sequential steps of execution and a vertical axis that shows the number of workflow-activities with allowed concurrent execution of each step. However, neither the cited figure nor any other section of *Klianev* teaches or suggests “parsing at least one log file to generate the event associations and to suppress non-associated events, wherein the at least one log file comprises the events from the one or more event flows.” *Klianev* discloses figures for a workflow-activities matrix. This is wholly unrelated to the method described in amended claim 1 for representing event associations in a first sequence diagram. Moreover, *Klianev* entirely fails to teach or suggest the feature of generating event associations and suppressing non-associated events from one or more event flows on a sequence diagram. Thus, *Klianev* fails to make amended claim 1 obvious due to

the absence of each and every element of amended claim 1. Moreover, the combination of the cited references also fails to make amended claim 1 obvious due to the deficiencies in the cited references.

I.B. *Sabiers* and *Klianov* fail to teach or suggest, either alone or in combination, the feature of constructing multiple sequence diagram representations at lower levels in a first sequence diagram representation, wherein a user drills down from the first sequence diagram representation to the lower levels, and wherein the first sequence diagram representation and the multiple sequence diagram representations show interactions arranged in a time sequence for methods, objects, classes, threads, and processes.

The cited references fail to teach or suggest the feature of “constructing multiple sequence diagram representations at lower levels in a first sequence diagram representation, wherein a user drills down from the first sequence diagram representation to the lower levels, and wherein the first sequence diagram representation and the multiple sequence diagram representations show interactions arranged in a time sequence for methods, objects, classes, threads, and processes,” as recited in amended claim 1. *Sabiers* discloses the following:

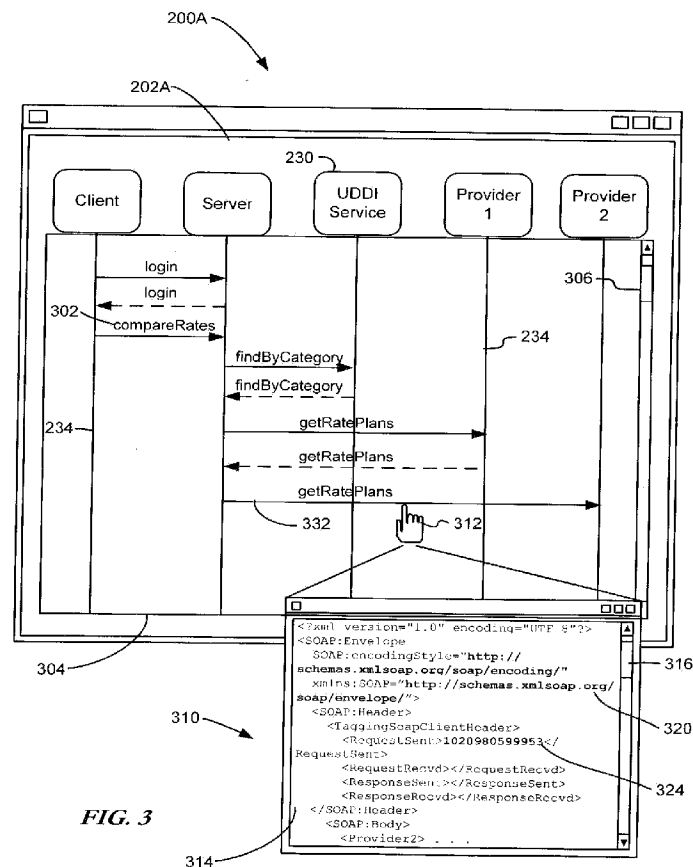


Figure 3, *Sabiers*.

The above-cited figure displays a graphic user interface with a text based message content window. (See *Sabiers*, paragraph 57). The message content window is displayed by selecting an interconnection component. Figure 3 in *Sabiers* discloses a text based message content window that can be accessed by selecting on a component of the figure in *Sabiers*. However, this text based message content window does not teach or suggest 1) constructing multiple sequence diagram representations at lower levels within in a first sequence diagram representation; 2) allowing a user to drill down from the first sequence diagram to the lower levels; and 3) showing interactions for methods, objects, classes, threads, and processes within the first sequence diagram representation and the multiple sequence diagram representations, as recited in amended claim 1. The text based message content window is wholly unrelated to a sequence diagram. Thus, *Sabiers* does not make amended claim 1 obvious, because not every feature of amended claim 1 is taught or suggested by *Sabiers*.

Additionally, *Klianev* fails to make up for the deficiencies of *Sabiers*. *Klianev* states:

Mouse clicking on a workflow-activity icon creates a new window getting one level deeper inside the workflow-activity by showing a more detailed picture of that workflow-activity.

Klianev, column 23, lines 65-66, column 24, lines 1-2.

The above-cited section of *Klianev* discloses clicking on a workflow matrix, as previously described in Figure 1 in *Klianev*, to show another picture of the workflow matrix. The more detailed picture of workflow activity does not disclose multiple sequence diagram representations at lower levels within in a first sequence diagram representation. Moreover, even if the more detailed picture of the workflow activity could be interpreted as disclosing multiple sequence diagrams, the more detailed picture of workflow activity does not show interactions for methods, objects, classes, threads, and processes within the first sequence diagram representation and the multiple sequence diagram representations, as recited in amended claim 1. Thus, *Klianev* does not make amended claim 1 obvious, because not every feature of amended claim 1 is taught or suggested by *Klianev*. Furthermore, the combination of *Sabiers* and *Klianev* fails to teach or suggest this feature. Indeed, as previously stated, neither reference makes up for the deficiencies of the other with respect to all the elements of amended claim 1. Thus, one of ordinary skill in the art would not be motivated to combine the cited references to achieve amended claim 1.

I.C. *Sabiers* and *Klianev* fail to teach or suggest, either alone or in combination, the feature of “wherein the multiple sequence diagram representations comprise a level of detail between objects located on threads in the first sequence diagram representation that are collapsible, wherein the event pairs are selected according to predetermined parameters.”

The cited references fail to make amended claim 1 obvious, because the cited references, either alone or in combination, fail to teach or suggest “wherein the multiple sequence diagram representations comprise a level of detail between objects located on threads in the first sequence diagram representation that are collapsible, wherein the event pairs are selected according to predetermined parameters.”

Sabiers states:

A method and apparatus is disclosed for representing Web service activity in a user interface. Web service objects are represented by graphical Web service components of the user interface. The Web service components are arranged in a generally in a row, with interconnection components displayed substantially parallel to the row. The interconnection components are displayed sequentially based on a sequence of interactions between the Web service objects.

Sabiers, Abstract.

The above-cited section of *Sabiers* discloses a method for representing Web service activity on a user interface where the interconnection components are displayed sequentially. However, the interconnected components displayed sequentially is not equivalent to multiple sequence diagram representations that comprise a level of detail between objects located on threads in the first sequence diagram representation that are collapsible and event pairs are selected according to predetermined parameters. As shown above, *Sabiers* does not teach or suggest multiple sequence diagram representations that are located in the first sequence diagram representation in this or any other section of the reference. Nor does *Sabiers* teach or suggest the feature that these multiple sequence diagrams are collapsible and that the event pairs are selected according to predetermined parameters. Thus, *Sabiers* does not make amended claim 1 obvious because this element of claim 1 is not taught or suggested.

Klianev fails to teach or suggest this feature of amended claim 1. *Klianev* teaches:

The produced at application design phase workflow definition describes flow of control between activities included in the workflow process and declares software components that will provide functionality of workflow-activities.

Defining of a workflow-process comprises following steps:

1. Defining workflow-activities matrix.
2. Defining main flow-graph.
3. Defining alternative control-connectors.
4. Defining workflow-components matrix.

Klianev, column 6, lines 44-53.

The above-cited reference discloses producing design phase workflows that describe the flow of control between activities included in the workflow process. *Klianev* discloses that the workflow-activities matrix is one-step in developing a workflow components matrix. However, neither this section nor any other section of *Klianev* teaches or suggests, “wherein the multiple sequence diagram representations comprise a level of detail between objects located on threads in the first sequence diagram

representation that are collapsible, wherein the event pairs are selected according to predetermined parameters,” as recited in amended claim 1. *Klianev* is wholly unrelated to the method described in amended claim 1 of presenting event associations between events on a first sequence diagram representation that contains multiple sequence diagram representations. One of ordinary skill in the art would not be motivated by *Klianev* to achieve this feature recited in amended claim 1. Furthermore, due to the large differences between *Klianev* and *Sabiers* and amended claim 1, under the *Graham v. John Deere Co.* inquiry, one of ordinary skill in the art would not be motivated to combine the cited references. Therefore, the combination of references fails to make amended claim 1 obvious.

I.D. The Examiner fails to state a sufficient reason to modify the reference in light of the large differences between the cited references and claim 1.

In the case at hand, no *prima facie* obviousness rejection can be stated because the Examiner failed to state a sufficient reason to modify *Sabiers* and *Klianev* in light of the great differences between the cited art and amended claim 1. Specifically, as shown above, *Sabiers* and *Klianev* fail to teach or suggest all of the above-described features of amended claim 1. Regarding a reason to modify *Sabiers* and *Klianev* the Examiner states:

It would have been obvious to modify the Web Services Components representational graphics of *Sabiers* with the teachings of Collections from *Klianev* because this feature would have provided a mechanism to model a hierarchy of class objects with capacity to represent variety of workflow configurations and associated structure of threads with capacity for concurrent processing of multitude of workflow requests and wherein collections and individual objects are accessible via references controlled by objects belonging to collections from previous level.

Final Office Action, dated December 27, 2007, page 3-4.

However, as previously discussed, large differences exists between the cited references and amended claim 1. The Examiner’s proposed reason for modifying the cited art provides no rational underpinning to support a legal conclusion of obviousness. Thus, the Examiner’s reason for modifying *Sabiers* and *Klianev* provides an insufficient basis for modifying the teachings of the cited art in the manner necessary to reach each and every feature of amended claim 1, especially in the light of the large differences that exist between *Sabiers* in view of *Klianev* and amended claims 1.

For these reasons, the rejection of obviousness *vis-à-vis* amended claim 1 has been overcome.

II. Remaining Claims

Claims 2-7 depend from independent claim 1 Therefore, at least by virtue of their dependency on claim 1, these claims are non-obvious over the cited references.

III. Conclusion

The subject application is patentable over the cited references and is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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